

Module 2: Child Growth and Development

Overview

This module is designed to provide an overview of growth and development in infants, toddlers, preschoolers, and school-agers (up to age eight).

Student outcomes

Student Outcome	Washington State Core Competency	Corresponding WAC	
		Centers	FHCC
Outcome A The student will recognize development as a continuum with identifiable basic milestones.	<i>Content Area 1: Child Growth & Development</i> 1a. Recognizes that development occurs in a continuum. 1b. Identifies basic developmental milestones of children.	WAC 170-295-2030 WAC 170-295-2040	170-296A-6575
Outcome B The student will identify developmental needs of infants, toddlers and preschoolers, and school-agers to age eight.	<i>Content Area 1: Child Growth & Development</i> 1d. Recognizes that children respond to situations differently. 1g. Adapts and modifies care and education to children's changing needs and unique personalities.	WAC 170-295-2030 WAC 170-295-2120	170-296A-6575 & 170-296A-000
Outcome C The student will describe early brain development.	<i>Content Area 1: Child Growth & Development</i> 1c. Recognizes that infant and toddler development occur in the context of a secure relationship with a consistent caregiver. 3a. Recognizes that interaction with people and the environment stimulates the child's brain function and therefore brain growth and development.	WAC 170-295-2030 WAC 170-295-2120	170-296A-6575

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Required Reading

1. *Child Care Center Licensing Guidebook* (2nd ed., DEL 2006)
Outcomes A and B: Section 3, pp. 58-59 (“Helping children grow and learn”), pp. 59-68 (“Developmental Profiles”), pp. 113-115 (“Infant/Toddler Program Developmental Highlights”), and pp.111-113 (“Are there special program requirements for infants and toddlers?”)
Outcome C: Section 3, pp. 59-61 (“Developmental profiles: Infants”).
Online at:
<http://www.del.wa.gov/publications/licensing/docs/ChildCareCenterLicensingGuide.pdf>.
2. Washington State Family Home Child Care Licensing Guide (2nd ed., DEL, 2013)
Section 3 pp. 7- 11, pp. 17-22, pp. 23-27 “Washington State Early Learning and Development Guidelines”, pp. 49-51; “Infant Care”. Section 4 pp. 22-25 “Environments”.



Recommended resources for instructors

1. *Washington State Early Learning and Development Guidelines, Birth through 3rd Grade 2012*
2. Centers for Disease Control’s “Learn the Signs, Act Early” site includes a milestones checklist, found at:
<http://www.cdc.gov/ncbddd/actearly/milestones/index.html>, and
http://www.cdc.gov/NCBDDD/actearly/pdf/checklists/All_Checklists.pdf
3. Test your own mental flexibility. An example of executive functioning is found in the Stroop Test. This two minute video will allow participants to test their own mental flexibility: <http://www.youtube.com/watch?v=pP7xlattxTc>
4. Milestone Quizzes, found at: <http://www.cdc.gov/NCBDDD/actearly/quiz/alt.html> or
<http://www.parenthelp123.org/child-development/milestones-quiz>
5. “Developmentally Appropriate Practice in Early Childhood Programs, Serving Children from Birth through Age 8” (2009), found at:
<http://www.naeyc.org/files/naeyc/file/positions/position%20statement%20Web.pdf>.
6. The Science of Early Childhood Development from Harvard University
http://developingchild.harvard.edu/resources/briefs/inbrief_series/inbrief_the_science_of_ecd/



Videos supporting this Module

1. Videatives Streaming Service offers “10 Videos on Executive Function,” at:
<http://streaming.videatives.com/playlists/8ef0a1549aea9c6e08d792965586e8d5/share>.
2. Harvard University’s Center for the Developing Child has a video series regarding three core concepts of child development. Video number two explores the concept of “Serve and Return”:

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http://developingchild.harvard.edu/resources/multimedia/videos/three_core_concepts/serve_and_return/

3. A segment from Brain Rules for Babies: <http://www.brainrules.net/brain-rules-for-baby-video>.

Introduction

Please refer to **Handout 1, “NAEYC Principles of Child Development.”**

Caring for young children begins with an understanding of child development so that providers can anticipate the needs of infants, toddlers, preschoolers and school-agers up to age eight. The National Association for the Education of Young Children (NAEYC) offers the following advice:

“To guide their decisions about practice, all early childhood teachers need to understand the developmental changes that typically occur in the years from birth through age eight and beyond, variations in development that may occur, and how best to support children’s learning and development during these years.” -NAEYC Position Statement on Developmentally Appropriate Practices (1996)



Opening Activities

Option 1: Pair & share

This activity can be done at the very start of the class to get participants thinking about the topic and learning about each other a bit.

Ask participants to turn to someone sitting near them and pair up in twos (or threes) and share what their favorite age in early childhood is (for example, toddlers, four year olds, etc.), and why. Then have them introduce their partner(s) and explain why a particular age is her/his favorite. Encourage discussion on why participants like a particular age-group.

Option 2: Early learning slides

Show all or parts of the following video course, “Washington State Early Learning and Development Guidelines,” at:

http://deltraining.com/courses/Early_Learning_Guidelines_English/content-frame.htm

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Outcome A

The student will recognize that development is a continuum with identifiable basic milestones.



Discussion Questions

1. What is a continuum?
2. What are milestones and why are they important?
3. What are red flags?



Presentation

Clarity of terms

Development refers to the gradual and predictable process of increasingly complex changes that occur over the course of a lifetime. Early childhood development follows the first, and most important, phase of human development: from birth to age eight.

Growth differs from development in that it usually means an increase in size or physical maturation--not an increase in the complexity of changes.

Child development is normally divided into stages according to children's ages. The *Child Care Center Licensing Guidebook* breaks the stages down as follows:

- Infants: 1 to 12 months
- Toddlers: 1 to 2 ½ years
- Preschoolers: 2 ½ to 5 years
- Young school-agers: 6 to 8 years

The *Washington State Early Learning and Development Guidelines* identifies the following categories:

- Young infants
- Older infants
- Toddlers
- Ages 4 to 5 years
- Age 5 and kindergarteners
- First grade—about age 6
- Second grade—about age 7
- Third grade—about age 8

Development is also separated into distinct areas of development called *domains*. In reality, this is simply a way to focus on different areas in which children are developing. The four domains of development are identified in the Guidebook as:

Emotional
Intellectual

Social
Physical and Health

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It is important to remember the domains are all *interrelated* (interconnected) and overlapping. For example, to be able to pedal a tricycle, a child needs a combination of physical coordination, intellectual understanding, and motivation (social ability).

The more you know about the development of the children in your care, the better prepared you will be to meet their emotional, social, intellectual, and physical needs. Child outcomes are directly related to the skills of the adults caring for them.

Child Development Continuum

A *continuum* is a continuous sequence or progression. Development moves from the general to the specific, from large to small, simple to complex, and concrete to symbolic. For example, children's first drawings of people are very simple- usually a head with arms and/or legs. Over time they add more to their drawings (hands, feet, clothes, ears, etc.) so they become increasingly detailed.

A developmental continuum outlines the predictable order, or expected progression of skills. Research has found that all new learning and development is “built from the bottom up” or built upon children's previous skills. (*The Science of Early Childhood Development, Harvard University, 2007, p.2*) For example, babies roll over, creep, crawl, cruise, then walk—developing new skills that are built upon previous skills. The *sequence* (or order) of development is actually more important than the pace of a child's development.

Theories differ about whether child development occurs in stages or unfolds continuously. Development sometimes seems to change between periods of *equilibrium* (calm and balanced periods) and *disequilibrium* (when a child is moody and out of sorts). Children's development is often a process of two steps forward and one step back.

Research has found that children's development isn't the result of only nature (biology) or only nurture (environment), but a combination of both. Each child's unique combination of genetics, culture, temperament, nutrition, experiences, and interactions makes development highly individual.

So although child development is predictable and sequential, there is much variation from child to child. There also can be unevenness across domains; for example, one child may walk well but not say much, while another might be quite verbal but not so mobile.

These individual differences mean that there is a wide range of “normalcy” in development. For example, while the average age for first steps is about 12 months, anywhere from 9-16 months is still within the normal range.

Child development milestones and red flags

Distribute **Handout 2, “Differences in Development” (three pages).**

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Developmental *milestones* are “an action or ability marking a significant stage in development.” These markers of development:

- Are specific skills that are usually achieved by a certain age.
- Occur in all developmental domains-- physical, social, emotional, intellectual and cognitive.
- Are used to measure children’s achievements and needs, giving families accurate feedback on their child’s development.

Red Flags are warning signs that development may be delayed or atypical. These red flags are noticed when children don’t meet milestones as expected. Each child’s development is unique and develops in a continuum. But if a child shows a pattern of not being able to do things that most other children are doing at the same age, it may indicate that further assessment is needed. Red flags are cause for action but not alarm! Children benefit most when caregivers can identify potential delays and signs of challenges as early as possible. Remember it is not your role to diagnose children but to refer them for further assessment and possible early intervention. In Module 3 you will learn more about observing, assessing, and referring children.



Interactive Learning Activities

Option 1: Adult abilities continuum

Materials and Resources Needed

- Chart paper or whiteboard
- Copies of *Washington State Early Learning and Development Guidelines*
- Optional: internet access

This activity will allow participants to be part of a physical continuum to illustrate the concept of a child development continuum. Just as children’s behavior progresses from simple to complicated, adult abilities in various activities also range from basic to well-developed.

Explain to students that you will read some examples of activities and a range of abilities. Ask them to decide which answer describes their ability level the best. They can indicate their choice by raising their hand, standing up at their seats, or lining up in order in the front of the room.

1. How well do you sew? Are you able to:

- Sew on a button, maybe?
- Hem and repair clothes?
- Follow patterns?
- Design and create your own clothing?

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2. How many languages do you speak? Are you fluent in:
 - One language, barely?
 - One language with an ability to speak some in a second language?
 - Two languages?
 - Three or more languages?
3. How well do you swim? Can you swim:
 - Hardly at all?
 - Doing the dog-paddle?
 - Across a pool?
 - Many laps or across small lake?

Adapted from *Training Teachers: A Harvest of Theory and Practice*, by Margie Carter, Deb Curtis and Elizabeth Jones, Redleaf Press, 2002, where you will find more suggestions for ability continuums.

Option 2: Draw a developmental continuum

Materials Needed

- Chart paper or whiteboard
- Markers or pens

Workings in small groups or pairs, have participants create a developmental continuum on a whiteboard or chart paper. Ask them to:

- Name a typical developmental activity young children learn to do – for example, hopping, talking, riding a tricycle, or building a tower.
- Draw a long line on the white board or large paper, with the end point being the mastery of the desired skill or task.
- Write down all of the steps needed from the beginning to get to the goal. For example, in order to run, children first need to stand, then wobble, then cruise, then walk, then run.
- Debrief – these steps or skills are actually called “milestones.”

Option 3: Early childhood milestones checklists

Materials Needed

- Internet access required

Take a look at some common milestones children reach as they grow from infants to school-agers:

1. Centers for Disease Control milestones checklists:
http://www.cdc.gov/NCBDDD/actearly/pdf/checklists/All_Checklists.pdf

Have participants write down their observations and reactions so the class can discuss.

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Option 4: Developmental guidelines: identifying red flags

Materials Needed

- Copies of the *Washington State Early Learning and Development Guidelines*

Divide the students into 8 groups. Distribute copies of *Washington State Early Learning and Development Guidelines: Birth through 3rd Grade* to each group and assign them an age group from the selection below. Ask the students to find the red flags for their age group. Hint: look for the “Sections on Differences in Development” that identifies red flags for each age groups.

1. Young infants (p. 26-27)
2. Older infants (p. 39-40)
3. Toddlers (p. 66-67)
4. Ages 4 to 5 years (p. 81-83)
5. Age 5 and kindergarten (p. 95)
6. First Grade – about 6 years (p. 105)
7. Second grade- about 7 years (p. 115)
8. Third grade- about 8 years (p. 125)

Debrief by asking each group to share examples of red flags for their age groups. Go one more step – give an example of specific behaviors or milestones, then ask what age the milestone is typically reached. Examples of milestones include walking, rolling over, jumping, saying two words together, pointing, counting, cutting, etc.

Outcome B

The student will identify the developmental needs of infants, toddlers, preschoolers, and school-agers to age eight.



Discussion Questions

1. What do all young children need in order to thrive?
2. What are the specific needs of each stage of development--infants, toddlers, preschoolers, and young school-agers?
3. What are individual differences in needs?



Presentation

Developmental and individual needs

All humans have common needs. Our emotional, social, intellectual, physical and health needs must be satisfied in order for us to grow, learn and thrive. Research tells us that:

- Learning starts with families and in communities.

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- Children learn through relationships, play, and active exploration.
- Every child and family has unique gifts and abilities.
- Children learn best when they are healthy, safe, and free of hunger.
- Learning is interrelated and builds upon prior learning and development.
- Young children can learn more than one language.
- Building “executive function” (the command and control center of the brain) is crucial for development and learning.
- Children learn in and through their environment. (From *Washington State Early Learning and Development Guidelines: Birth through 3rd Grade*)

The National Association for the Education of Young Children (NAEYC) provides care providers with guidelines for applying research directly to practice. The guidelines are referred to as Developmentally Appropriate Practices, or DAP. There are three core considerations for DAP:

1. Knowledge of child development and learning helps us decide which experiences are best for children at specific times in their lives.
2. We learn about each child’s interests, abilities, and progress when we continually observe a child’s play and interactions.
3. By getting to know the children’s families and learning about the values, expectations, and factors that shape their lives at home and in their communities, we will be able to provide meaningful, relevant and respectful learning experiences for each child.

Teachers help ensure Developmentally Appropriate Practices when they intentionally meet young children **where they are developmentally**, and help the children achieve learning goals that are both basic and challenging.

Temperament

Research on temperament has given care providers clues on how to meet a child’s individual needs. Each child is born with his/her own temperament and behavioral characteristics that usually persist through life. Researchers Thomas, Chess & Birch identified nine temperamental traits:

1. Activity level
2. Regularity of sleeping and eating patterns
3. Adaptability (approach to or withdrawal from new situations)
4. Intensity of emotion
5. Mood (generally positive or negative)
6. Distractibility (high or low)
7. Persistence
8. Attention span
9. Sensory sensitivity

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These nine traits group children into three different patterns or temperament types:

- The “easy” or “flexible” child- 40%
- The “difficult” or “spirited” child- 10%
- The “slow to warm up” or “shy” child- 15%
- A mix of traits; no clear pattern

None of these traits is good or bad; no one type is better than the other. The term “Goodness of Fit” is the match between a child’s temperament and his or her environment. A child is in a good fit when adult expectations and demands match the child’s temperamental characteristics. For example, it can be troubling for a family to expect their shy child to enjoy noisy socializing, or for a care program to expect the child who is slow to adapt and/or has high persistence to switch activities all of a sudden. Caregivers need to model respect for and support of each child’s unique combination of genetics, culture, temperament and experiences.



Interactive Learning Activities

Option 1: Identifying typical characteristics of developing children

Materials and Resources Needed

- Large pieces of paper to distribute (8½” x 11”)
- Markers
- At least 6 copies of the *Child Care Center Licensing Guidebook* (2nd ed) or the *Family Home Child Care Licensing Guidebook* (2nd ed)

Divide participants into groups of four and give each group a marker and a large piece of paper. Instruct each group draw an outline of a child. Have them label their picture with one of the following: Infants, Toddlers, Preschoolers, or School-Agers to Age Eight.

Then have the groups write down everything they know about the assigned developmental stage by answering the following questions:

1. What is characteristic about this age-group?
2. What is it they like to do?

When groups are finished, ask them to share a few of the things they wrote down, and then tape each paper to the wall for future reference.

Option 2: Research the resources for clues on what to expect

Materials and Resources Needed

- Copies of the *Child Care Center Licensing Guidebook*, or the *Family Home Child Care Licensing Guide*

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- Copies of the *Washington State Early Learning and Development Guidelines*
- Sheets of paper

Explain that this activity will increase participant's knowledge of the stages of child development and familiarize them with resources available. Divide participants into groups and assign each an age group. Give each group a piece of paper. Have them refer to pages 58-59 from the *Child Care Center Licensing Guidebook* on "Helping Children Grow and Learn" for a general overview, or Section 3, "Washington Early Learning and Development Guidelines" in the *Family Home Licensing Guide*. You may also review developmental profiles on the following pages of the *Licensing Guidebook*:

- Infants, pp.59-61 and 111-114
- Toddlers, pp.61-63 and 115
- Preschoolers, pp. 63-66
- School agers, pp. 66-68

Using the *Early Learning and Development Guidelines*, review the information on what children may be doing:

- Young infants, pp.17-27; older infants pp.31-40
- Toddlers, pp.41-52; ages 3-4 years, pp. 55-66
- Children ages 4-5, pp. 69-83; age 5 and kindergarteners, pp.85- 95
- Children in first through third grade, pp. 97-125

Ask each group to record on their paper and share the 5-10 most valuable clues about their assigned age group. The instructor may follow up with the following questions:

- Why did they choose these characteristics?
- If they had to boil it down to one, which one and why?
- Are any of these considered major milestones?
- Which is least understood or known?

Outcome C

The student will describe early brain development.



Discussion Questions

1. How does the brain develop?
2. What is executive functioning and toxic stress?
3. How can providers support early brain development?



Presentation

Brain development basics

Recent research shows that the earliest years are most critical for brain development and future learning. Some of the most important findings are that the infant brain:

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- Develops through a combination of nature and nurture.
- Begins development in the prenatal stage.
- Contains over 100 billion brain cells (neurons) at birth.
- Grows to fit its' environment by connections (or synapses) made between neurons.
- Uses synapses to send brain impulses, controlling the body, mind, feelings, memory and language.
- Is wired on a “use it or lose it” system. Synapses are created and strengthened with use, and wither away if unused.
- Is dependent on the quality of the relationship between the infant and primary caregiver. (National Scientific Council on the Developing Child, 2010b)

Research has found that the architecture and functioning of the infant brain is determined by the *quality* of the first relationships – the attachment between a baby and his/her primary caregiver. This relationship “sculpts” the brain for future learning, behavior, relationships, feelings and health. Studies show that for optimal development, the infant brain needs a secure attachment with at least one primary caregiver who provides responsive, reliable and affectionate care.

The main ingredient needed is the “serve and return” relationship between children and primary caregivers. This reciprocal back-and-forth interaction happens when children reach out to adults, and adults respond in kind.

Research has found that a close relationship with an adult who provides consistent, responsive care can strengthen attachment. Babies learn trust when cared for by adults who know them and respond to their cues. Like dance partners, babies and caregivers learn each other's moves and signals. Infants can become frustrated or even stop trying to connect with adults in a setting in which caregivers change constantly. This is why the high rate of turnover in infant and toddler childcare is especially concerning.

Optional video: Show a two minute video on the concept of “serve and return,” found at http://developingchild.harvard.edu/resources/multimedia/videos/three_core_concepts/serve_and_return/.

YOU CANNOT SPOIL A BABY! Responding to infants' cues quickly and reliably not only promotes security and enhances brain development, but research has shown it also makes babies cry less.

Executive functions

One part of brain development has received special attention. The prefrontal cortex part of the brain (behind your forehead) houses executive functions. Executive functioning:

- Is the brain's “Air Traffic Control System”, enabling the brain and body to deal with multiple information and distractions at one time.
- Can be broken down into three skill area: Working Memory, Inhibitory Control and Mental Flexibility.

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- Is associated with good child outcomes, success in school, and life-long benefits.

Optional executive functioning media:

1. Explain that the following will help them better understand the importance and components of executive functioning and early childhood. Show students the entire Washington State Department of Early Learning's training video *Executive Functions* or just the sections "Essential Core Concepts" and "Your Role as an Adult Caregiver" at:
http://www.deltraining.com/courses/Executive_Function/content-frame.htm.
2. Explain that the following will help them better understand the importance and components of executive functioning and early childhood. Show this 5 ½ minute video:
http://developingchild.harvard.edu/resources/multimedia/videos/inbrief_series/inbrief_executive_function/

Stress and early brain development

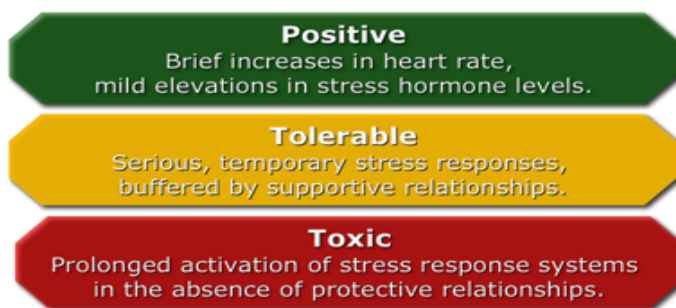


Figure 1. Stress response systems' effects on the body (The Center on the Developing Child, Harvard University)

Positive stress results in brief increases in heart rate and hormones, and is normal and needed for healthy development. Examples are a shot at the doctor's office, or the first day of school.

Tolerable stress, such as a serious injury or loss of a loved one, is more intense and causes the body's stress systems to go on high alert. But it may not have a negative effect on the developing brain if the event is cushioned by a positive relationship with a caregiver.

Toxic stress occurs when negative events are chronic or prolonged, such as severe poverty, domestic abuse, parental mental health issues or drug/alcohol dependency, severe maternal depression, repeated abuse, or chronic neglect. When exposure to toxic stress is not buffered by the support of a caregiver, the brain's developing structure can be permanently damaged.

Toxic stress may cause abnormal organization and function of the brain, including:

- Fewer synaptic connections (synaptic connections are what make the brain function)
- Under-developed executive skills, reasoning and decision-making abilities
- Less success in school, processing new information, and learning
- Less likely to develop caring relationships
- More aggressive and impulsive behavior

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- Weaker immune, metabolic and cardiovascular systems

The best way to shield developing brains from the effects of toxic stress is to avoid exposure to long-term stressful conditions. While childcare providers may not be able to prevent toxic stress, research shows that early responsive relationships with caring adults can reverse the damaging effects. Babies can learn to calm and regulate their emotions if supported. In other words, the loving care you provide to young children could make a permanent difference in their mental and physical health.

Brain development and screen time (television, video games, smart phones, computers, DVDs, etc.) can also have an adverse effect on early brain development. Research has found that screen time is associated with problems with executive functions such as attention, concentration, impulsivity, imagination, planning, language and social skills. Children who spend lots of time in front of screens are at higher risk of being overweight, prejudiced, sedentary, fearful, aggressive, and/or unable to distinguish between fantasy and reality.

The American Academy of Pediatrics recommends no screen media (television, computer games, videos, DVDs, etc.) for children two and younger. Older children should see no more than 1-2 hours per day. Providers can help by not using screens at child care, saving the daily hour for home.

Research shows that videos geared towards making babies “smarter” (such as “Baby Einstein”) actually do the opposite and delay intellectual and language development. This is because young children learn by interacting with people and their environments, not by passive watching.



Interactive Learning Activities

Option 1: The Science of Early Childhood Development video

Materials Needed

- Internet access required

Explain that this video from Harvard University's Center on Developing Children will discuss brain development, the impact of caregivers, and toxic stress:

http://developingchild.harvard.edu/resources/multimedia/videos/three_core_concepts/brain_architecture/

Option 2: Three Core Concepts of Brain Development video

Materials Needed

- Internet access required

Explain that this video will illustrate how the brain develops:

http://developingchild.harvard.edu/index.php/resources/multimedia/videos/inbrief_series/inbrief_science_of_ecd/

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Debrief by asking participants to answer the following questions (can be done as a class, in small groups, or pairs):

1. Did anything on the video surprise you? If so, what and why?
2. What do you think was the most important information on the video for caregivers to know? Parents?
3. What do you think your program, or home providers, generally need to do to apply these research findings?

Option 3: Will it help or hurt brain development?

- **Handout 3 “Brain Development Self-Assessment”**

Explain that participants will now have a chance to see what child care practices could help or hurt early brain development. Pass around **Handout 3** and ask participants to fill out the self-assessment portion. This activity can be done in pairs.

Closing Words

This module discussed child development and the needs of infants, toddlers, preschoolers, and young school-agers. We discussed the stages, domains, milestones, and brain basics of early childhood development. Caregivers who understand early development are best able to meet young children’s needs by providing appropriate expectations and environments, and the consistent and nurturing care that growing children deserve.

Discussion questions for review:

1. What is development?
2. What is growth?
3. How does development happen?
4. What are the stages and areas of child development?

Explain that these last activities will help them remember more from the module since studies show adults retain more when they name what they’ve learned.



Closing activities

Option 1: Ball toss circle

Materials Needed

- Small, soft ball

Ask the group to stand in a large circle and gently toss a small soft ball (like a Kush or Nerf) to a participant and ask her/him to:

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- Name one new thing s/he learned today or thought was particularly important (explain that they can say pass if nothing comes to mind at the time).
- Next s/he tosses the ball underhand to another participant to answer the questions and so on until whole group has participated.

Option 2: Written goals

Materials Needed

- Index cards, pens

Pass out index cards to participants and ask them to:

- Write their name on one side.
- On the other side list one thing they want to do (or do differently), or an idea they will try as a result of today's module.

Take the cards home and look at them before the next module to see if they have done what they wrote or not. Or, the trainer could collect the cards and return to participants at start of next module



Assessment of Learning Options

Option 1: Have students take quiz on **Handout 6**, “Check for Understanding.”

Option 2: “Name that age group” bingo game

Materials and Resources Needed

- **Handout 4**, blank bingo sheet
- Strips of paper identifying age-appropriate behaviors, prepared ahead of time
- M&M's, Skittles, or dried beans

Create about 25 to 30 strips of paper. On each strip, write one behavior that is typical for infants, toddlers, preschoolers or school-agers—with a total of five or more behaviors for each age group.

Explain that this game will test participants on their understanding of age-appropriate behaviors. Give each participant a blank bingo sheet (**Handout 4**) and ask them to fill it in by writing one of these letters in each square:

I (infants), T (toddlers), P (preschoolers), and S (school-agers)

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For example:

T	P	I	P	I
S	T	I	I	S
T	I	FREE	S	T
S	P	S	I	P
I	S	T	T	S

Distribute enough beans or candies (like M&Ms or Skittles) to cover all squares. Select one behavior at a time from an envelope or container. Ask participants to name the age group to which that behavior belongs, then cover the appropriate square on their bingo sheets. When their card is filled, they yell “BINGO!” (You could have a small prize for the winner.)

Review and discuss all characteristics that were selected with the class, and repeat the game as many times as desired.

Option 3: Age-appropriate scenarios

Materials and Resources Needed

- **Handout 5, “Age Appropriate Behavior Scenarios”**
- Copies of the *Washington State Early Learning and Development Guidelines*

Explain that this activity will allow students to expand their knowledge of developmental stages, familiarize them with the *Guidelines*, and practice explaining developmental standards to others.

Pass out copies of the *Guidelines* and **Handout 5**. Ask participants to form pairs and decide together which age group’s scenario they would like to read (or assign age groups). Allow the students a few minutes to read and discuss the example and ideas.

Debrief by pulling the group back together and begin a discussion of each scenario:

1. Why might the child(ren) act this way?
2. What would you suggest?
3. How could this concept be explained?

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Handout 1

NAEYC Principles of Child Development

NAEYC principles of child development and learning that inform developmentally appropriate practice:

1. Domains of children's development--physical, social, emotional, and cognitive--are closely related.
2. Development occurs in a relatively orderly sequence, with later abilities, skills, and knowledge building on those already acquired.
3. Development proceeds at varying rates from child to child as well as unevenly within different areas of each child's functioning.
4. Early experiences have both cumulative and delayed effects on individual children's development; optimal periods exist for certain types of development and learning.
5. Development proceeds in predictable directions toward greater complexity, organization, and internalization.
6. Development and learning occur in and are influenced by multiple social and cultural contexts.
7. Children are active learners, drawing on direct physical and social experience as well as culturally transmitted knowledge to construct their own understandings of the world around them.
8. Development and learning result from interaction of biological maturation and the environment, which includes both the physical and social worlds that children live in.
9. Play is an important vehicle for children's social, emotional, and cognitive development, as well as a reflection of their development.
10. Development advances when children have opportunities to practice newly acquired skills as well as when they experience a challenge just beyond the level of their present mastery.
11. Children demonstrate different modes of knowing and learning and different ways of representing what they know.
12. Children develop and learn best in the context of a community where they are safe and valued, their physical needs are met, and they feel psychologically secure.

Differences in Development

As a parent, you know your baby best. You notice things such as how and when your baby smiles, sits up, learns new words, walks, or holds a cup. What you are seeing is how your child is growing through different stages of development.

Every baby grows and develops at his or her own pace. It is important to talk with your child's healthcare provider at every visit about the milestones your baby has reached and what to expect next. It is also important to tell your baby's healthcare provider if you notice any of these signs of possible developmental delay. Please make sure to discuss your concerns if:

By age 2 months, your baby:

- Doesn't respond to loud sounds
- Doesn't watch things as they move
- Doesn't smile at people
- Doesn't bring hands to mouth
- Can't hold head up when pushing up, when on tummy

By age 4 months, your baby:

- Doesn't watch things as they move
- Doesn't smile at people
- Can't hold head steady
- Doesn't coo or make sounds
- Doesn't bring things to mouth
- Doesn't push down with legs when feet are placed on a hard surface
- Has trouble moving one or both eyes in all directions

By age 6 months, your baby:

- Doesn't try to get things that are in reach
- Shows no affection for caregivers

- Doesn't respond to sounds around him or her
- Has difficulty getting things to mouth
- Seems very floppy
- Doesn't make vowel sounds (such as "ah," "eh," "oh")
- Doesn't roll over in either direction
- Doesn't laugh or make squealing sounds
- Seems very stiff, with tight muscles

By age 9 months, your baby:

- Doesn't bear weight on legs with support
- Doesn't sit with help
- Doesn't babble ("mama," "baba," "dada")
- Doesn't play any games involving back-and-forth play
- Doesn't respond to own name
- Doesn't seem to recognize familiar people
- Doesn't look where you point
- Doesn't transfer toys from one hand to the other

Differences in Development

As a parent, you know your toddler best. You notice things such as how and when your toddler walks, plays with toys, talks, or feeds himself/herself using a spoon or fork. What you are seeing is how your toddler is growing through different stages of development.

Every child grows and develops at his or her own pace. It is important to talk with your toddler's healthcare provider at every visit about the milestones your toddler has reached and what to expect next. It is also important to tell your toddler's healthcare provider if you notice any of these signs of possible developmental delay. Please make sure to discuss your concerns if:

By age 12 months, your child:

- Doesn't crawl
- Can't stand when supported
- Doesn't search for things that he or she sees you hide
- Doesn't point to things
- Doesn't learn gestures like waving or shaking head
- Doesn't say simple words like "mama" or "dada"
- Has lost skills he or she once had (some backsliding is normal)
- Doesn't point to show things to others
- Can't walk
- Doesn't know what familiar things are used for
- Doesn't copy others' actions or words
- Doesn't gain new words
- Doesn't have at least six words
- Doesn't notice when a caregiver leaves or returns
- Has lost skills he or she once had (some backsliding is normal)

The American Academy of Pediatrics recommends that all children be screened for general development at their 18 month visit. Ask your child's healthcare provider about your child's developmental screening

Differences in Development

As a parent, you know your toddler best. You notice things such as how and when your toddler learns new skills, eats new foods and plays with others. What you are seeing is how your toddler is growing through different stages of development.

Every toddler grows and develops at his or her own pace. It is important to talk with your toddler's healthcare provider at every visit about the milestones your toddler has reached and what to expect next. It is also important to tell your child's healthcare provider if you notice any of these signs of possible developmental delay. Please make sure to discuss your concerns if:

By age 18 months, your child:

- Doesn't point to show things to others
- Can't walk
- Doesn't know what familiar things are used for
- Doesn't copy others' actions or words
- Doesn't gain new words
- Doesn't have at least six words
- Doesn't notice when a caregiver leaves or returns
- Loses skills he or she once had

By age 2, if your child:

- Doesn't know what to do with common things, such as a brush, phone, fork or spoon
- Doesn't copy actions and words
- Doesn't follow simple instructions
- Doesn't use two-word phrases (for example "drink milk")
- Doesn't walk steadily
- Loses skills he or she once had

By age 3, if your child:

- Falls down a lot or has trouble with stairs
- Drools or has very unclear speech
- Can't work simple toys such as peg boards, simple puzzles, turning a handle
- Doesn't understand simple instructions
- Doesn't speak in sentences
- Doesn't make eye contact when getting your attention (may vary by culture)
- Doesn't play pretend or make-believe
- Doesn't want to play with other children or with toys
- Loses skills he or she once had

The American Academy of Pediatrics recommends that all children be screened for general development at their 18 and 24-month visit. Ask your child's healthcare provider about your child's developmental screening

Module 2: Child Growth and Development

Handout 3

Brain Development Self-Assessment: Will it Help or Harm Brain Development?

Activity/Practice	Help Brain Development?	Harm Brain Development?	Why?
Primary caregivers			
Turnover of staff			
Responding quickly to cries			
Scheduled feedings			
Use of baby equipment like swings			
Playing background music			
Showing videos or educational TV			
Reading the same book repeatedly			
Reading different books			
Singing the same songs over and over			
Introducing new songs			
Messy art activities			
Limiting outside time			
Early exposure to academics			

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Handout 4

Age-appropriate BINGO!

		FREE		

I = Infant

T = Toddler

P = Preschool child

S = School-aged child

Module 2: Child Growth and Development

Handout 5

Age-Appropriate Behavior Scenarios

Please read the scenario assigned to you, then answer the following questions:

1. Do you think this behavior or expectation is age-appropriate? (check the Guidebook if unsure)
2. If so, how could you explain this to the parents/co-workers/etc.?
3. Is there anything you can do to prevent this situation/problem from happening again?

1) Infant Scenario: Jamal is almost 10 months old and just entering the separation anxiety stage—when older babies or young toddlers resist separating from their primary caregiver. This is a normal part of growth and development and a milestone in social-emotional development that shows Jamal's attachment to his mother. Jamal's parents are concerned because he is now crying and clinging when his parents bring him in the morning. They are worried that something has happened to him since he didn't act this way for the previous 4 months he'd been at your center.

2) Toddler Scenario: You have been working with toddlers at the Stay-and-Play Child Care Center for over a year and love their energy and curiosity! A new teacher assistant is subbing with you and tells two toddlers struggling over a toy phone to "share nicely" which just escalates the fighting. She finally removes the toy and tells them no one can have it if they don't share. The toddlers are now both crying and whining for the phone and the rest of the class is starting to as well. The sub tells you that she is used to kindergartners and doesn't know what to do with toddlers.

3) Preschool Scenario: You have been running your own family child care home for a couple of years and have an extensive collection of dress up clothes that the children adore. A parent has just started her three and four year old sons in your program and seems very upset when he comes to pick his boys up and finds them dressed as princesses. This parent is concerned that dressing up in girl's clothes is inappropriate for boys and will cause them to be confused and teased. You are also upset because the boys love dressing up and you don't want to restrict children's imaginative play.

4) School-ager Scenario: You just started working in an afterschool program for 5-8 year olds at a local elementary school. The children are expected to do their homework as soon as they come in afterschool since this is what parents want. You notice that this is a constant struggle with children acting up and complaining (and doing very little actual homework.) Your supervisor asks what you think they should do. What do you think should change and how would you explain your reasons?

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Handout 6

☒ Check for Understanding (10 Points)

Choose the best answer to demonstrate your understanding of Module 2.

- 1) The different areas of developmental (physical, emotional, etc.) are called:
 - a. Domains
 - b. Stages
 - c. Periods
 - d. Executive functions
- 2) A skill that should be accomplished by a certain age and is a marker of development is called a:
 - a. Domain
 - b. Milestone
 - c. Stage
 - d. Continuum
- 3) Brain connections (or synapses) are automatic and not effected by the environment.
T / F
- 4) Which of the following will NOT enhance brain development in young children?
 - a. Responding quickly to the cues of infants
 - b. Showing educational television programs
 - c. Reading regularly to children
 - d. Music, art, exercise and touch
- 5) Executive functions can be limited by toxic stress. T / F
- 6) Child development is:
 - a. Predictable and universal
 - b. Impacted by both nature and nurture
 - c. Progresses from the simple to complex
 - d. All of the above are correct
- 7) Temperament refers to characteristics that change with developmental stage. T / F
- 8) Why are secure and consistent relationships important for child development?
 - a. For secure emotional attachment between child and caregiver
 - b. For healthy brain development
 - c. Both of the above
 - d. Neither of the above
- 9) Developmentally appropriate practice can best be defined as individually- and age-appropriate. T / F
- 10) You can't spoil a baby by holding him/her, or responding quickly to her cues. T / F

Module 2: Child Growth and Development

- 11) Which is **not** a temperamental type?
- a. Easy or flexible
 - b. Difficult or spirited
 - c. Unattached
 - d. Slow to warm or shy
- 12) The effects of toxic stress can be buffered by a caring and consistent caregiver. T / F
- 13) A red flag is best described as:
- a. A sign of a definite problem
 - b. An indicator of a potential problem
 - c. The low end of the continuum
 - d. An indicator of a difficult temperament
- 14) Brain connections (or synapses) are strengthened when left alone and pruned away when overused. T / F
- 15) Which is not a domain of development?
- a. Physical
 - b. Social
 - c. Creative
 - d. Intellectual
- 16) Executive functions are called the “air traffic controller” of the brain and is located in the prefrontal cortex. T / F
- 17) Developmental milestones:
- a. Are age-specific tasks that most children can do by a certain age range
 - b. Must be met by an exact age or the child is developmentally delayed
 - c. Are unaffected by individual factors like culture and temperament
 - d. All of the above are true
- 18) A continuum is a range or progression. T / F
- 19) According to the Child Care Center Licensing Guidebook, infants are children under three years of age. T / F
- 20) Which of these types of stress adversely affect early brain development?
- a. Toxic stress
 - b. Positive stress
 - c. Tolerable stress
 - d. All of the above

Module 2: Child Growth and Development

☒ Check for Understanding (Answer Key)

- 1) The different areas of developmental (physical, emotional, etc.) are called:
a. Domains
- 2) A skill that should be accomplished by a certain age and is a marker of development is called **b. Milestone**
- 3) Brain connections (or synapses) are automatic and not effected by the environment. **F**
- 4) Which of the following will NOT enhance brain development in young children?
b. Showing educational television programs
- 5) Executive functions can be limited by toxic stress. **T**
- 6) Child development is: **d. All of the above are correct**
- 7) Temperament refers to characteristics that change with developmental stage. **F**
- 8) Why are secure and consistent relationships important for child development?
c. Both of the above
- 9) Developmentally appropriate practice can best be defined as individually and age appropriate. **T**
- 10) You can't spoil a baby by holding him/her, or responding quickly to her cues. **T**
- 11) Which is **not** a temperamental type: **c. Unattached**
- 12) The effects of toxic stress can be buffered by a caring and consistent caregiver.
T
- 13) A red flag is best described as: **b. An indicator of a potential problem**
- 14) Brain connections (or synapses) are strengthened when left alone and pruned away when overused. **F**
- 15) Which is not a domain of development: **c. Creative**
- 16) Executive functions are called the "air traffic control center" of the brain and are located in the prefrontal cortex. **T**
- 17) Developmental milestones: **a. Are age-specific tasks that most children can do by a certain age range.**

Module 2: Child Growth and Development

18) A continuum is a range or progression. **T**

19) According to the Child Care Center Licensing Guidebook, infants are those under three years of age. **F**

20) Which of these types of stress adversely affect early brain development?
a. Toxic stress